DOI: 10.12740/APP/109628

## Contemporary views on shyness – a literature review

### Magdalena Chęć

### **Summary**

**Aim:** The aim of this paper is to present the phenomenon of shyness, its etiology and the underlying mechanisms in the development of anxiety disorders.

**Background:** Shyness is a social problem affecting many people worldwide. Increasing use of social media, replacing real, direct social interactions does not foster proper development of social skills. Difficulties in establishing or maintaining relationships with other people lead to or exacerbate social anxiety, associated with both shyness and social phobia.

**Results:** Many years of global research reveal that shyness is affected by both biological (including temperamental), as well as environmental factors. Currently, shyness is considered a relatively stable personality trait, and should therefore be distinguished from social anxiety (i.e. a state) or social phobia (i.e. a disorder).

**Discussion:** There are qualitative and quantitative differences between shyness and anxiety disorders.

**Conclusion:** Psychotherapy is a good treatment option for shyness. The most popular and effective methods of therapy include: behavioral therapy, cognitive – behavioral therapy, role play therapy and social skills training.

social phobia, social anxiety, shyness

### INTRODUCTION

Shyness seems to have always been present in the history of humanity, from the very beginning of social life. Nevertheless, the phenomenon has only recently become the subject of interest of psychology – the heyday of research in this field falls on the second half of the 20th century and continues to this day. The simplest, most basic understanding of shyness assumes fear of other people.

Contemporary understanding of shyness is somewhat distinct from its previous definitions. Back in early 400 B.C., Hippocrates described

the phenomenon of excessive fear of people, presenting a man who "loved darkness as life", "dared not come in company, for fear he should be misused, disgraced, overshoot himself in gesture of speeches, or be sick," and "thought every man observed him" [1]. This is without a doubt by far the oldest recorded case that could now be classified as social phobia. Its symptoms clearly illustrate how big of a role social relationships play in human life. The concept of timidity appears also in the works of Aristotle of Stagira, who presents a type of a shy person who experiences a fear of acting and speaking. He calls such an individual "idle," thus juxtaposing them with a "shameless" one [2]. In the nineteenth century, Darwin deals with the subject of intimidation, i.e. an emotional reaction which often appears in social interactions, pointing out

**Magdalena Chęć:** University of Szczecin, Institute of Psychology, Department of Clinical Psychology. Poland

Correspondence address: magda.chec@gmail.com

its adaptive value. He focuses on a group of feelings sharing particular facial expressions, which are also directed at oneself. Apart from intimidation, those also include shame and modesty. Darwin links shyness with the emotion of fear, but suggests differences between the two. As an example, he describes a situation in which a shy person might dread the notice of strangers, but could hardly be considered afraid of them. A shy man, he says, "may be as bold as a hero in battle, and yet have no self-confidence about trifles in the presence of strangers" [3].

High prevalence and serious, often negative social effects of shyness attract increasing attention to this phenomenon. In Zimbardo's research (2000), as many as 80% of respondents declared being somehow affected by the problem of shyness, including those who once described themselves as shy and those who still lacked self-confidence in social interactions. As many as 40% of respondents still struggled with meeting new people, making friends and generally bringing themselves to act. Shyness may have various effects – from a feeling of slight embarrassment, through unjustified fear of people, to extreme neurosis [4]. Recent years have brought a big breakthrough in research on shyness and attempts to define it.

### Shyness, social anxiety and phobia

Shyness is considered a concept that is quite blurry and difficult to define. Zabłocka (2012) points out that its many definitions prove mutually exclusive. There is not even a full consensus as to whether it should be considered a personality – or temperament-related trait, or one that is manifest only as a mere affective response to a given situation. Shyness is often listed along with social anxiety, intimidation or social phobia [5]. A common aspect of these concepts is that they are associated with self-consciousness, or insight, as well as the fact that they are all triggered in social situations [6]. A clear differentiation between these concepts is the first step to delineate the definition framework of shyness.

Intimidation is a common, negative emotional reaction that usually occurs in interpersonal situations. Contacts with strangers or people of different sex are considered the most threaten-

ing. A feeling of intimidation is also experienced in interactions with authority figures. New, unknown social situations as well as those that require firm action tend to bring about a temporary sense of insecurity [7].

Social anxiety and shyness are concepts that do overlap, yet are not interchangeable. Both comprise cognitive, emotional and somatic components [8]. Their common feature is the sense of constant scrutiny by other people in social situations - regardless of whether those are real or imagined. In the definition of Schlenker and Leary (1982), social anxiety is a negative arousal that occurs when a person fears physical or psychological harm, as well as a desire to avoid situations that may cause such emotions [9]. Leary (1986) posits that apart from social anxiety, shyness consists of the so-called affective-behavioral syndrome, thus highlighting the importance of its behavioral aspect [10]. Dzwonkowska (2009) lists social anxiety as one of the components of dispositional shyness. She also points out that there are situations that arouse anxiety among people who are not generally shy (when they become the center of attention, eg. during public speeches). Considering the theoretical links between social anxiety and shyness, she states that it is possible to distinguish them [4].

Social phobia differs from social anxiety in terms of symptom severity [11]. Since its appearance in various classifications of diseases (the DSM and ICD), social anxiety disorder has become difficult to be differentiated from "pure shyness". In the latest version of the DSM-5, social anxiety disorder (SAD) is described as a fear of negative judgment on the part of people who observe the behavior of the individual. People with SAD are afraid they might act "stupid" or tactless during social interactions, ie. they will choke, their hands will shake when writing or appearing in public or they will be unable to speak or perform, eg. dance in front of the audience. Due to intense anxiety, SAD patients avoid most social situations. Many report physical symptoms, including blushing, trembling of the limbs or sweating, the mere anticipation of which may trigger panic attacks. SAD begins at an early age and lasts for years. "The fear, anxiety or avoidance is persistent, typically lasting 6 or more months" [12]. SAD is accompanied by distress or disability and limitation of professional, academic or social functioning. The DSM-5 dictates that social phobia should be differentiated, among others, from shyness [13].

Contemporary views on shyness and social anxiety disorder suggest that the two do vary in both qualitative and quantitative ways. Supposing there was only a quantitative difference, then all people with anxiety disorders would be shy, which is clearly not the case. Only about one half of people diagnosed with anxiety disorders are shy, while less than 1/4 of shy people meet the criteria for social phobia. Shy persons do not have to constantly feel anxious or experience distress [14]. Social anxiety disorder is also associated with a greater number of comorbidities (with other anxiety disorders, depression, etc.), a greater severity of avoidance and a significant deterioration of life [15].

Shyness is a normal personality trait that can be mistaken for social phobia. It is a stable desire to withdraw from social interactions related to new situations, in contrast to anxiety disorders, in which affected individuals experience strong fear, embarrassment or humiliation in social situations, up to a point where they avoid these situations entirely or endure them with a high level of distress [16]. It is also a facet of personality that people, especially those less socially open, can consider positive and attractive, as shy persons are less expansive, easier to get closer to and make friends with [17, 18]. According to Zimbardo, a shy person is convinced that he or she lacks the necessary social competences to establish a relationship with another person, while at the same time having the will and knowledge how to act in such situations [19]. Crozier (2000) seeks the underpinnings of shyness in biological, temperament-related and environmental factors [6]. Shyness, perceived as a relatively constant, inherited temperamental disposition, is associated with high sensitivity of the nervous system [20]. According to this approach, completely ridding oneself of shyness is virtually impossible. According to the cognitive-behavioral theories, shyness stems from a lack of adequate social skills, previous negative experiences with other people, anticipated failure, leading to performance anxiety, and excessive frustration with outcomes that are different from initial expectations. Miller's research (2000) confirms the existence of a connection between shyness and poor

social skills. According to this approach, timid behavior can be eradicated by acquiring new, more effective social skills [21]. Psychoanalysts, on the other hand, look for the roots of shyness in the disturbances of personality development and the conflict between the id, ego and superego structures. In this sense, it is an expression of unmet desires [19]. In social psychology, shyness comes along with the labeling process – a child who is labeled as shy accepts it and attributes their failures to their own actions [22].

Parental shyness, especially in mothers, is believed to have a significant impact on the shyness of their offspring. Research conducted by Harwas – Napierała (1995) suggests that 75% of shy youth have parents who are also shy. A strong emotional bond between a shy parent and a shy child creates favorable conditions for the child to adopt parental behaviors [23, 24]. Other studies show that there are three types of families that support the development of shyness in children: overly protective (limiting independent activity, pursuing goals and coping in new situations), lacking sufficient emotional bond between parents and children (neglecting a child's need of security, love and recognition and not providing the opportunity to interact with others), and with inconsistent parental attitudes, especially in the earliest periods of life [25]. Zimbardo (2000) links shyness with the social "modesty training" and a lack of training to be in the center, negative experiences of public appearances and deprivation of independence [19].

# Understanding shyness – symptomatic and syndromic approaches

There are two approaches to understanding shyness – a symptomatic and a syndromic one. The former describes behavioral or emotional aspects of lacking self-confidence, focusing on the external symptoms associated with poor performance in social situations, mainly when the individual and their actions are the object of interest of other people. Janet (after: Borecka-Biernat, 2001) treats shyness as a specific disturbance in the course of purposeful action, which is manifested in the presence of other people. Shy persons have an internal compulsion to fo-

cus on their observers, which deems them incapable of concentrating on their own actions [26]. Important external symptoms of shyness include: increased heart rate, palpitations, blushing, low volume of speech and "butterflies in the stomach" [19].

Judent proposes the division of bodily symptoms into those associated with muscle tone, reduced sensory perception, vascular disturbance and disorders of the secretory system. The first group includes limited mobility, hand tremor, fatigue, decreased dexterity and difficulty in speaking (caused by tightness in the chest that affects the rhythm of breathing, tense vocal ligaments changing the tone of voice, and the stiffness of facial muscles hindering pronunciation). The second symptom group becomes evident during events a shy individual finds difficult. It involves a significant narrowing of perception, especially within the hearing and visual domains. The third symptom group is associated with redness of the face. A person who is blushing is well aware of the changing color of their face, thus experiencing additional stress and evaluation apprehension. The last, fourth symptom of shyness are secretory disorders, eg. sweating or dryness in the mouth [23]. All these symptoms are common in situations associated with strong emotional arousal. In the case of people who do not fear social interactions, these states are considered a slight inconvenience. They do not prevent them from enjoying upcoming events or making friends. In turn, shy people tend to focus their full attention on physical symptoms. The very thought of forthcoming events may trigger their onset, which could lead them to abandoning action altogether [19].

In the emotional aspect, shyness is also one of the forms of anxiety, which occurs during social interactions. Shy persons are self-conscious and passive, fearing negative assessment from other people. Unsatisfactory social experiences lead to the development of a negative self-image and a lack of self-acceptance, which further reinforce the symptoms of shyness [20].

In the syndromic approach, shyness is described as a complex set of symptoms affecting an individual's behavior, emotions and self-orientation [27]. The etiology of low self-confidence is linked to the erroneous interpretation of social

events, resulting from specific cognitive aspects of personality [28]. A shy person is fully aware of their difficulties in handling social activity which they would like to and are competent to initiate [29]. According to Gerstmann (1963), shyness is a form of emotional response developed as a result of experienced failures. Such experiences lead to greater caution and anticipation of potential difficulties. The phenomenon should also be understood as a sense of threat to the self, resulting from the realization that the individual can be subjected to social scrutiny and negative assessment. This fear of social judgment leads shy persons to act in a somewhat chaotic manner, strive to avoid interaction with other people, or even completely withdraw from social situations [23]. In the emotional aspect, shyness is a tendency to experience fear, anxiety or anger in situations of social exposure. In the self-orientation sphere, it is linked with reduced self-esteem and a sense of difficulty handling social situations. In their longitudinal intercultural studies, Cheek and Buss (2001) show a relationship between self-esteem and shyness among people of all ages. Timid people tend to have a lower self-esteem than their peers who do not have such a problem [30]. According to other studies, negative self-image affects occurrence of shyness [31]. Similar findings are reported by Smith and Betz (2002), who describe low self-esteem as a direct predictor of shyness. However, this does not exclude the opposite dependence [32]. In his research on shy primary school children, Carducci (2003, 2008) demonstrated their sense of lower competence and worse achievements compared to their peers [33, 34]. Timid children also tend to consider their IQ as lower than their peers [35].

The shyness syndrome consists of three components: self-schema, social inhibition and social anxiety. Its particular elements are analyzed in terms of their impact on one's general functioning and potential areas of difficulty. What is worth noting, anxiety is not a necessary factor for the occurrence of shyness, but without it, the shyness syndrome is incomplete. The self-schema of a shy person includes a conviction that they are in fact shy. Reinforced conviction concerning difficulties in social relations shapes dispositional shyness – it does not matter how a person is perceived by the society if they sub-

jectively consider themselves shy [19]. Social inhibition leads to avoidance or withdrawal from various types of social interactions and activities. Shy individuals, who remain numb and silent during conversations of others, even people they know, are quite a common sighting. Also, a lack of self-confidence is more frequently expressed in the form of no action rather than extraordinary actions in situations where there is a desire to interact with another person [29]. Social anxiety includes somatic, emotional and cognitive components. The first group is linked to stimulation of the autonomic nervous system. In stressful situations, shy persons often report increased heart rate, blood pressure, faster breathing, their hands become cold, and their bodies begin to sweat. The chest tightens, making breathing difficult, the voice becomes weak, and its timbre changes, which is particularly evident during public appearances. There is also some stiffness in the facial muscles that interferes with diction. The second component of anxiety, associated with the emotional domain, is defined as an emerging feeling of tension in a situation of potential social scrutiny [4]. The very anticipation of such circumstances makes a shy person experience severe anxiety and discomfort. Studies on the emotions of shy children show that compared with their bold peers, they experience more frequent anxiety and other negative feelings, including symptoms of depression [8, 36]. Lack of self-confidence makes it difficult for them to make friends and maintain relationships with other people, thus leading to impaired socialization [26]. Shyness is associated with psychosocial problems, which become particularly evident during adolescence [37], i.e. a time when young people experience a strong need to belong and be accepted by their peers. Cognitive difficulties include distraction and problems with maintaining attention. Timid people tend to sacrifice a lot of their time to their internal experiences, which affects the quantity and quality of stimulation received from the environment. They think about their faults and limitations, carefully analyzing each and every aspect of their behavior. Social anxiety affects their cognitive processes, resulting in selective perception and reduced memory. Their thinking is distorted - external information is interpreted as signals of social rejection [4].

### Types of shyness

An important element in the development of shyness is self-consciousness, also defined as insight or self-analysis [38]. Withdrawal from relationships with others leads to inhibition of emotions, beliefs and behaviors. Zimbardo believes shy persons have a rich world of inner experiences, where they tend to live their lives, exhibiting an excessive tendency to reenact and analyze their real-life experiences [19].

Buss et al. (1975) distinguish two types of self-consciousness: public and private. The former appears when the thoughts of a shy person revolve around how they might be perceived by others. Such a person will pay extra attention to what others think about them, worry about their physical appearance and attach great importance to all their actions, for fear of being ridiculed. Private self-consciousness involves focusing on oneself and analyzing one's own negative traits and behaviors. Shy persons with private self-consciousness are sensitive to their own emotional states and spend a great deal of time trying to understand themselves [39].

Similarly to Buss's division of self-consciousness into public and private, Pilkonis distinguishes two types of shy people. The difference between them is that while those shy in public worry about their potentially improper behavior, the other ones are concerned they might feel bad [19]. People who are publicly shy are worried about their actions and inability to adequately respond to emerging social challenges. Their pattern of behavior is based on negative thoughts concerning their own competences. Those, in turn, tend to affect their actions, which, subjected to social evaluation, adversely influence their mood, leading to a significant drop in their self-esteem. Despite their various talents or excellent education, they are less likely to succeed or occupy appropriate professional positions. One reason may be that they seem to be lacking effective strategies of positive selfpresentation, or the ability to ask others for help. Those shy in private usually function quite well in social situations. They tend to hide their shyness very well, and can even be perceived as the life and soul of the party, keeping their worries concerning social interactions to themselves, or masking them with trained social skills. Avoiding situations that could make them feel insecure, they may miss out on many possibilities in life [19].

Another division of shyness is based on two components: fear and shame. Henderson (2000) and Miller (1999) distinguish two forms of shyness, exhibited quite early in child development anxious shyness and self-conscious shyness (with the predominance of shame). The former is associated with dominant fear and anxiety. It emerges in social situations, in the form of fear of strangers or novelty. In the course of human development it usually appears first (around the age of 1), its symptoms including restless behavior in company of persons who are unknown to the child. The later developing self-conscious shyness, linked to the feeling of shame, appears alongside the development of awareness and the ability to assume the perspectives of other people, therefore around the age of 5-6 years. This form of shyness prevails among adolescents, for whom the opinion of their peers is of immense importance [40,41].

### HELP FOR THE SHY

Shyness is considered a personal difficulty, which, however, seems to affect so many people worldwide that it can be easily described as a civilization disease. Currently, there are many centers specializing particularly in the treatment of shy individuals. The Friendship Clinic at Penn State University or the Stanford Shyness Clinic are places where hundreds of people come to seek support every year. Their patients take classes in good communication – learning to initiate and maintain conversations, give and receive compliments, play roles in social situations, present themselves and their feelings. Dr. Phillips from the Friendship Clinic teaches how to conduct small talk during simulated cocktail parties [42]. In Poland, there is a Center for Mutism and Shyness Therapy, which offers therapy for shy individuals, as well as training for professionals who treat this problem in their practice.

A popular and effective method of dealing with shyness is cognitive therapy, based on changing one's attitudes towards him or herself and towards their relationships with others. Cognitive training consists in learning to trans-

fer excessively focused attention onto the conversation partner, or the situation itself, which alleviates anxiety and provides a pattern of behavior that could be applied in real-life social situations [11]. An important element in shyness therapy is to explain to patients that, contrary to their beliefs, they are not constantly scrutinized and/or judged by other people[4].

Shyness training used mainly in treatment of children relies mostly on two behavioral techniques – desensitization and modeling. The first one consists in transforming maladaptive responses into desired actions. Anxiety experienced by children during social interactions gradually drops throughout training, in which they acquire self-calming skills. Thus the impulses that trigger given reactions are no longer associated with anxiety, but rather with the state of relaxation [43]. Through modeling, a shy person learns behaviors that facilitate effective communication with others. For this very purpose, video recordings of social situations are used, constituting material for subsequent training of social skills and behavioral patterns that can be used in real-life situations. Such training aims at improving communication competences, active listening or initiating new conversations [24].

Another method of working with shyness is social skills training (SST), teaching competences that prove beneficial in relationships with others. It involves role-playing techniques and simulations of various social situations [44], especially those known to generate particular anxiety in shy people – a job interview, a social event or a meeting with their crush [19]. Interaction training provides the opportunity to experience different reactions in safe conditions.

There is a growing number of books teaching self-therapy on the global publishing market. Currently, there are several self-help volumes offering techniques of dealing with the problem of shyness – encouraging readers to work with their difficulties by doing specially designed exercises and exploring the underlying causes of their shyness. In turn, Zimbardo (2000) suggests joining self-help groups, whose members, in addition to being shy, should have similar interests such as sports or theater. This helps create groups that can support individual development in the combat against shyness [19]. There are numerous Internet sites devoted to shyness,

containing basic information on the problem, as well as tips or places where one can seek help (eg http://www.shyness.com/; https://shyandfree.com/). Many psychologists offer shyness therapy, both in the form of classical psychotherapy and online assistance.

The use of computer-assisted therapies is becoming increasingly popular. Studies suggest good effects of this type of interventions in children and adolescents with autism. Through the tasks displayed on screen, children can practice their social skills, eg. an invitation to dance. Regular training turns out to improve their functioning in real life [45]. Timid people can also easily and quickly work on the problem of shyness with the help of a smartphone application called Youper, which was created a few years ago in San Francisco and has since been downloaded over 40,000 times. This application uses modern discoveries from the fields of neuroscience, design and new technologies, providing effective solutions for coping with shyness and improving social skills. Its creators convince that as little as 7 minutes a day of using the app is enough to develop greater trust in others, lower the level of anxiety and increase self-esteem [46].

### **CONCLUSIONS**

- Shyness is a stable personality disposition to withdraw from new social situations.
- Shyness is not synonymous to social anxiety or social phobia, in either qualitative or quantitative terms.
- Shyness has both biological and environmental underpinnings.
- There are psychotherapeutic interventions of confirmed efficacy, created to treat shyness.

### **REFERENCES:**

- Lydiard RB. Psychiatric Times. UBM Medica US; updates 2019 March 15.. Available from:http://www.psychiatrictimes. com/comorbidity-psychiatry/when-does-shyness-becomedisorder.
- Arystoteles. Etyka wielka. Poetyka. Warszawa: Wydawnictwo Naukowe PWN; 1977.
- Darwin K. O wyrazie uczuć u człowieka i zwierząt. Warszawa: Wydawnictwo Naukowe PWN; 1988.

- Dzwonkowska I. Nieśmiałość a wspierające i trudne relacje z ludźmi. Kraków: Oficyna Wydawnicza "Impuls"; 2009.
- Zabłocka M. Zrozumieć nieśmiałość: Aspekty diagnostyczne i terapeutyczne. Bydgoszcz: Uniwersytet Kazimierza Wielkiego w Bydgoszczy; 2012.
- Crozier WR. Shyness and Relationships: Continuity and Change. In: Crozier WR, editor. Shyness. Development, Consolidation and Change. London: Routledge; 2000. p. 1–21.
- Russell D, Cutrona C, Jones WH. A trait-situational analysis of shyness. New York: Plenum; 1986.
- Greco LA, Morris TL. Treating Childhood Shyness and Related Behavior: Empirically Evaluated Approaches to Promote Positive Social Interactions. Clinical Child and Family Psychology Review. 2002; 4(4): 299-318.
- Schlenker BR, Leary, MR. Social Anxiety and Self-Presentation: A Conceptualization and Model. Psychological Bulletin. 1982; 92(3): 641-669.
- Leary MR. Affective and Behavioral Components of Shyness. Implications for Theory, Measurement, and Research. In: Jones WH, Cheek JM, Briggs SR, editors. Shyness, Perspectives on Research and Treatment. Boston: Springer; 1986. p. 27-38.
- Leary MR, Kowalski RM. Lęk społeczny. Gdańsk: GWP; 2001
- 12. Święcicki Ł, Gałecki P. Kryteria diagnostyczne z DSM-5. Wrocław: Edra Urban & Partner; 2015.
- Morrison J. DSM-5 bez tajemnic. Praktyczny przewodnik dla klinicystów. Kraków: Wydawnictwo Uniwersytetu Jagiellońskiego; 2016.
- Dalrymple KL, Zimmerman M. When does benign shyness become social anxiety, a treatable disorder? Current Psychiatry. 2013; 12(11): 21-38.
- Heiser NA, Turner SM, Beidel DC, Roberson-Nay R. Differentiating social phobia from shyness. J Anxiety Disord. 2009; 23(4): 469-476.
- Chavira DA, Stein MB, Malcarne VL. Scrutinizing the relationship between shyness and social phobia. J Anxiety Disord. 2002; 16(6): 585-598.
- National Institute of Mental Health homepage on the Internet.. US updated 2018 July; cited 2019 March 19.. Available from: https://www.nimh.nih.gov/health/topics/anxiety-disorders/index.shtml.
- American Psychiatric Associacion homepage on the Internet.. US updated 2017 Jan; cited 2019 March 19.. Available from: https://www.psychiatry.org/patients-families/anxiety-disorders/what-are-anxiety-disorders.
- 19. Zimbardo P. Nieśmiałość. Warszawa: PWN; 2000.
- 20. Burstein M, Ameli-Grillon L, Merikangas KR. Shyness versus social phobia in US youth. Pediatrics. 2011; 128(5): 917-925.
- Miller R. Niepewność i zakłopotanie. O pokonywaniu niechcianych uczuć. Gdańsk: GWP; 2000.

- 22. Umecka M. Dziecko nieśmiałe w szkole. Problemy Opiekuńczo Wychowawcze. 2008; 10: 22 27.
- Harwas Napierała B. Nieśmiałość dziecka. Poznań: Wydawnictwo Naukowe Uniwersytetu im. Adama Mickiewicza; 1979.
- Harwas-Napierała B. Nieśmiałość dorosłych: geneza diagnostyka – terapia. Poznań: Wyd. Fundacji Humaniora; 1995.
- Witkin, G. Stres dziecięcy: czym jest, jak się przejawia, jak mu zaradzić. Poznań: "Rebis"; 2000.
- Borecka-Biernat D. Zachowania nieśmiałe młodzieży w trudnej sytuacji społecznej. Kraków: Oficyna Wydawnicza "Impuls": 2001.
- Gładyszewska-Cylulko J. Wspomaganie rozwoju dzieci nieśmiałych poprzez wizualizację i inne techniki arteterapii. Kraków: Impuls; 2010.
- Tyszkowa M. Nieśmiałość i zahamowanie. In: Pomykało W, editor. Encyklopedia pedagogiczna. Warszawa: Fundacja "Innowacja"; 1993. p. 457-459.
- 29. Zimbardo PG, Ruch FL. Psychologia i życie. Warszawa: Wydawnictwo Naukowe PWN; 1997.
- Cheek JM, Buss AH. Shyness and sociability. Journal of Personality and Social Psychology. 1981; 41(2): 330–339.
- Tyszkowa M. Osobowościowe podstawy syndromu nieśmiałości. Psychologia Wychowawcza. 1978; 3: 230-342.
- Schmidt LA, Fox NA. Individual differences in young adults' shyness and sociability: Personality and health correlates. Personality and Individual Differences. 1995; 19(4): 455-462.
- 33. Carducci BJ. The shyness breakthrough: A no-stress plan to help your shy child warm up, open up, and join the fun. Emmaus: Rodale; 2003.
- 34. Carducci BJ. Shyness. In:. Darity Jr. WA, editor. International encyclopedia of the social sciences. 2nd. ed. Detroit, MI: Macmillan Reference. 2008. p. 504-505.
- Słysz A. Dzieci nieśmiałe wymagają wsparcia. Edukacja i Dialog. 2003; 6: 63-67.

- Beidel DC, Turner SM. Shy Children, Phobic Adults: Nature and Treatment of Social Anxiety Disorder, Second Edition. Washington, DC: American Psychological Association; 2007.
- Liu J, Chen X, Zhou Y, Li D, Fu R, Coplan RJ. Relations of shyness – sensitivity and unsociability with adjustment in middle childhood and early adolescence in suburban Chinese children. International Journal of Behavioral Development. 2017; 41(6): 1-7.
- 38. Buss A. Self-consciousness and social anxiety. San Francisco: W. H. Freeman; 1980.
- Fenigstein A, Scheier MF, Buss AH. Public and private selfconsciousness: Assessment and theory. Journal of Consulting and Clinical Psychology. 1975; 43: 522-527.
- Henderson L. Social Fitness homepage on the Internet..
  The Shyness Institute updated 2014 March 29; cited 2019 March 19.. Available from: http://www.shyness.com/research-and-presentations/
- Miller RS. Niepewność i zakłopotanie. O pokonywaniu niechcianych uczuć. Gdańsk: GWP; 1999.
- Relationships; Shyness: Common Affliction homepage on the Internet.. The New York Times updated 1981 March 2; cited 2019 March 19.. Available from: https://www.nytimes. com/1981/03/02/style/relationships-shyness-common-affliction.html.
- 43. Grzesiuk L. Studia nad komunikacją interpersonalną. Warszawa: Pracownia Testów Psychologicznych PTP; 1994.
- 44. Argyle M. Psychologia stosunków międzyludzkich. Wyd.3. Warszawa: Wydawnictwo Naukowe PWN; 2002.
- Wojaczek K, Płatos M, Lipnicka M, Okruszek Ł. Zastosowanie programów komputerowych w terapii osób z zaburzeniami ze spektrum autyzmu. Psychiatria i Psychoterapia. 2015; 11(2): 21-37.
- Youper homepage on the Internet]. Youper, Inc. updated 2019; cited 2019 March 19]. Available from: https://www. youper.ai/.